

ENTOMOLOGICAL NOTES FROM THE EASTERN ARCHIPELAGO.

BY J. J. WALKER, R.N., F.L.S.

We bade farewell to North-Western Australia on October 29th, 1891, leaving Port Darwin at sunrise on that day *en route* for Hong Kong, and, after several days spent in the survey of the "Flinders Bank" and other coral patches situated on the edge of the hundred fathom line of soundings, we arrived at the remote and little-known Island of Damma, about 150 miles to the north-east of Timor, on the morning of November 6th. Anchoring in "Koelewatte Bay," which, although to all appearance a very good harbour, is exposed to the full force of the easterly monsoon, and is much encumbered with coral reefs, we spent five days here very pleasantly. The aspect of the island is most picturesque, the bay in which we were lying being enclosed by volcanic hills of remarkable steepness and bold serrated outlines from 600 to 2000 feet in height, clothed, from high water mark (and even from below this, counting in the mangroves), with a dense, unbroken bright green forest vegetation, forming a most striking contrast to the low and arid Australian shores we had so lately left. The one exception to this general forest clothing was on the right-hand side of the harbour, where the fine volcanic peak, nearly 4000 feet in height, is wooded to only half that elevation, the top being bare, or covered only with low shrubs and grass. Smoke issues almost constantly from the terminal crater, and bright yellow patches of sulphur could be made out distinctly on the higher slopes. The steepness of the slopes of the volcano, and the dense and tangled character of the forest covering them, would appear to make the ascent a matter of considerable difficulty, and none of us mustered up sufficient energy to make the attempt, which, indeed, is rarely accomplished by the natives, although they occasionally bring down small quantities of finely crystallized sulphur for export. All round the north shore of the bay, just above high-water mark, are innumerable little springs and trickles of pure but nearly boiling water, some of the larger ones being even utilized by the natives to cook their food. The island is scantily inhabited by a mixture of Malays and Papuans, who live in two or three small villages on the shores of the harbour, and appear to subsist chiefly on sago, fish and coco-nuts, though they also have pigs and fowls, and grow bananas and other fruits. There is at present no European residing on the island, the "Posthouder," who is the representative of the Netherlands Government, being a Macassar half-caste; the island being under the jurisdiction of the

Resident of Amboyna, is visited by him annually, and the Dutch mail steamer which goes the rounds of the Aru, Ké, and other remote eastern islands, calls here for a few hours at intervals of about three months.

I soon found that, although there was no lack of interesting insects in the forest, it was almost impossible to get about owing to the want of paths and the steep and rugged character of the hill sides, and I was very glad to find, at the head of the harbour, a considerable extent of nearly flat land, partly under cultivation, and partly swampy, with a dense growth of sago and coco-nut palms, while the rugged and rocky bed of a fine clear stream, which came down from the hills, enabled me to penetrate about a mile into the interior of the island, which is only ten miles long by about five in width. Butterflies were fairly plentiful, and I secured representatives of about 25 species, many of which bear a very close resemblance to those described and figured by Mr. Butler (Proc. Zool. Soc., 1883, pp. 365—371, and plate 38) from Mr. H. O. Forbes' captures in Timour-laut, about 200 miles to the eastward of Damma. This is especially the case with the species of *Euplœa* and *Danais*, the most common and characteristic butterflies of the island. In this remote part of the far east I was much pleased to meet with *Danais Plexippus* (*Archippus*), a very large, light coloured ♀ specimen; *Neptis aceris*, or a species very similar to it, was not rare, and some very pretty little *Lycænidæ* were taken, chiefly along the course of the stream. Here, too, I saw several specimens of a fine *Papilio* (apparently of the "Ægeus" group) and of a large light coloured *Charaxes*, but unfortunately failed to secure a specimen of either.

Coleoptera were fairly well represented, as I had the good luck to find two or three small clearings of various ages on the skirts of the forest, the dead and partially burned timber in which (although usually very dry) yielded an abundant harvest of small but interesting *Nitidulidæ*, *Cossonidæ*, *Cucujidæ*, *Brenthiidæ*, *Tenebrionidæ*, &c., &c., under the loose bark, while two or three handsome Longicorns, and two large and exceedingly conspicuous species of *Buprestidæ** were not uncommon, flying very actively in the hot sunshine and settling on logs and stumps, where they were not always easy to secure. A very fine and curious Staphylinid (*Leptochirus* sp.) was not rare in the damp fibrous débris left from sago washing on the banks of the stream. Brushing and beating foliage was not very productive,

* *Cyphogastra abdominalis*, Waterh., and *Pseudochrysodema* (?) *Walkeri*, Waterh. (Ann. and Mag. Nat. Hist. [6], x, pp. 411. 412).

yielding only a few inconspicuous *Curculionidæ*, &c. In the five days I managed to obtain by hard work about 110 species of *Coleoptera*, besides a fair assortment of other insects, a few nice land shells, &c. Birds were tolerably plentiful and variable, the most abundant being a large and very handsome fruit pigeon (*Carpophaga concinna*, Wall.), the deep booming note of which was to be heard everywhere in the forest. A good many of these fine birds were shot by our sportsmen, and proved to be excellent eating ; their crops usually contained entire nutmegs, which appear to grow wild in this island, as they are not cultivated here.

Leaving Damma on the afternoon of the 11th, two days' easy steaming through a sea smooth as glass brought us to Amboyna, and at 2 p.m. on the 13th we anchored off the town within a quarter of a mile of Fort "Neuw Victoria." Since I last set eyes on Tahiti, nearly nine years ago, I do not recall to mind a more perfectly beautiful piece of thoroughly tropical scenery than is presented by the noble harbour of Amboyna. It is a deep-water inlet some fifteen miles in length, with an average width of one to two miles, enclosed by rugged but not precipitous hills of ancient volcanic rock, which attain an extreme elevation of 4000 feet, and are everywhere clothed (except where the land has been cleared) with a splendid forest growth, especially dense and luxuriant on the northern side opposite the town. All round the harbour the lower land, which consists almost entirely of upheaved coral rock, is occupied by a nearly continuous belt of coco-nut and nutmeg plantations, and groves of fruit trees in which the town is in great part concealed ; and looking towards its upper extremity, the view is bounded in that direction by a distant glimpse of the lofty and rugged mountains in the great Island of Ceram.

We remained here until the morning of the 17th, the time being fully occupied in coaling, giving leave to the ship's company, and making magnetic and other observations. The Resident and the Dutch Officials stationed here vied with each other in showing us the utmost kindness and hospitality, an experience which was repeated at Ternaté. After the lapse of more than thirty years, it is pleasing to find that the memory of Dr. Wallace's residence in these islands is not forgotten, and the Dutch translation of the "Malay Archipelago" is as highly appreciated in the lands of which he gives us so vivid a picture, as the original work is at home.

In this renowned locality I was naturally anxious to make the most of the time at my disposal, and as the weather was fortunately all that could be desired (November being the finest and driest month

in the year at Amboyna), my success, in *Lepidoptera* at least, was very good, exceeding anything which I had done in past years, even in the productive regions of Central America and the Isthmus of Panamá. During the five days of our stay, I caught and set out representatives of more than 100 species of butterflies, upwards of 60 being taken in a single day's work. Nothing can be more enjoyable to the Entomologist than a stroll, net in hand, along the well-kept roads, which extend in every direction from the town, and through the shady and fragrant nutmeg plantations and patches of woodland on either hand, in which large and showy butterflies are so abundant as to form quite a feature in the scene. At the outset I was a little disappointed in not meeting with any of the grand *Ornithoptera*'s for which Amboyna is so famous, and indeed, I saw one specimen only of this genus, a splendid ♂ of *O. Remus*, hopelessly out of reach. Some half-dozen species of *Papilio* were fairly common, and among them the most conspicuous was the magnificent blue *P. Ulysses*, L., of which I saw at least a dozen specimens during my stay, but succeeded in capturing three only in good condition. It is a glorious sight to see this noble insect "at home," looking, except for the tailed wings and more sailing flight, very like one of the great blue American *Morpho*'s, e. g., *M. Peleides*, &c. Though at first sight he seems by no means difficult to catch, he is as wily as his namesake of old, and appears to know exactly the length of reach of the net, and keeps just outside the line of danger. Another insect which pleased me very much was the large white and black "spectre butterfly," *Hestia Idea*, found locally in dense woodland about five miles from the town. No butterfly with which I am acquainted has such a slow, weak, and wavering flight, and, in fact, at a little distance, it looks more like a conjurer's butterfly cut out of a piece of newspaper than a real living insect! The *Danaidæ* were represented by several other fine and handsome species, and *D. Plexippus* (large and richly coloured, with the apex of the fore-wings more produced than in any specimens which I have ever seen before) was common in open waste places, where its usual food-plant, *Asclepias curassavica*, grows freely, and appears to be completely naturalized. Several very fine species of *Euplæa* (one magnificent blue-glossed fellow being over five inches in expanse of wings) were more or less plentiful in shady spots; and in the darker and more tangled portions of the forest, a most conspicuous butterfly was the large *Drusilla Urania*?, which flapped about heavily among the brushwood, frequently settling on leaves and displaying the beautifully ocellated under-surface. In similar situations, along with *Melanitis*,

Mycalesis, and other interesting *Satyridæ*, a fine species of *Parthenos* occurred not rarely, but was almost always worn and torn, and by no means easy to catch. Sunny openings and paths in the nutmeg groves and thickets swarmed with interesting butterflies; the magnificent *Diadema Pandarus* occurred once only, with three or four other species of this fine genus; while *Cynthia*, *Messaras*, *Precis*, *Neptis*, *Cethosia* (the gorgeous red and black *C. Cydippe*, L., being most conspicuous), *Laogona*, *Elymnias*, *Delias*, *Callidryas*, *Hypochrysops*, *Lycæna* (some very beautiful species), *Pamphila*, and many other genera, were more or less copiously represented. Among the numerous handsome day-flying moths which were met with almost everywhere, the finest and most conspicuous was *Alcidis Orontes*, L., which appears to fly most freely about 4 p.m., and has very much the look of a fine *Papilio* on the wing. The equally large and handsome, but more soberly coloured *Nyctalemon Patroclus* was also found, but more rarely, in dark shady places.

The *Coleoptera*, to my great disappointment, I found to be as scarce and inconspicuous as the *Lepidoptera* were abundant and fine; had I been able to get right away into the forest, where new clearings were being made, I should no doubt have done very much better, but the only clearing within walking distance, although fairly extensive, was very old and dry, and yielded only a few *Rhynchophora*, &c., one fine species of this group, with exceedingly long legs and rostrum, being common enough on the felled timber, but very hard to catch, as it took to wing with the readiness of a fly. I took only one *Longicorn* (a beautiful dark blue species spotted with white), and did not even see a single *Buprestis*! The only beetles that I found at all commonly were an *Opatrum*? and a pretty spotted *Cicindela*, both of which occurred freely in the roads and pathways. On the rocky banks of a fine clear stream, which formed one of my best collecting-grounds, a beautiful dark bronzy species of *Therates* (*Cicindelidæ*), with enormously developed bright yellow labrum and mandibles, was not rare, running rapidly over foliage and taking to wing with great readiness. *Hemiptera* (with the exception of *Cicadæ*, which were abundant and extremely noisy) appeared to be almost as scarce as *Coleoptera*, but I took the largest and finest, and I may add, the most powerfully scented example of the Order which I have ever met with: a huge brown and ochreous-yellow insect, an inch and a half long, allied to *Pentatoma*, but with largely developed hind-legs. Flowers in open spaces attracted large numbers of fine and handsome wasps, hornets, *Scoliæ*, *Xylocopæ*, and other *Hymenoptera*, which, next to the *Lepidoptera*,

appeared to me to be the Order of insects best represented in Amboyna at the time I was there. Land shells were decidedly scarce, and of the fine and handsome sea-shells for which Amboyna is so renowned, very few came in my way, those which were brought alongside the ship by native dealers being of common species scarcely worth purchasing at any price.

Leaving with regret this most charming and interesting island at daybreak on the 18th, we crossed the equator in long. 127° east at 4 a.m. on the 21st, on which day I took several examples of the finest and largest species of the pelagic Hemipteron, *Halobates*, which I have ever met with; and at 7 a.m. on the 22nd we anchored in the roadstead of Ternaté. The magnificent tropical scenery of Amboyna must yield to that of Ternaté, which is altogether of a more bold and striking character, while possessing equal luxuriance of vegetation. The neat little town, almost hidden in dense groves of palms and fruit trees (the mango tree here attaining to a truly gigantic size), stretches along the shore for about a mile, and immediately behind it rises the great volcano to a height of about 5200 feet; at first with a gentle slope, and afterwards more steeply, the whole eastern side being seamed with deep radiating gullies, and covered, except towards the summit, with dense forest, cleared only in a few small patches. From the anchorage the summit is somewhat dome-shaped, and on the right hand side the terminal crater can just be seen, emitting a steady stream of white smoke. The ascent can be made within one day, and was accomplished by two of our officers, a feat to which I did not feel quite equal. Looking across the water to the eastward the view is bounded in that direction by the long forest-clad mountain ridges of Gilolo, which are terminated to the northward in a group of three lofty volcanic cones; but by far the most conspicuous and beautiful feature in the scene is the Peak of Tidoré, a volcanic cone of the most perfect symmetry of outline, surpassing in that respect even the greatly admired form of Ætna, though scarcely, if at all, exceeding the volcano of Termaté in elevation, its clear sharp figure, acutely pointed summit, and complete isolation, cause it to appear much higher. It has been quiescent for a very long period, and, like Ternaté, is wooded almost to the top.

During the three days of our stay here the weather was delightfully fine, although very hot, and I made the most of the time at my disposal for collecting. Although butterflies were not represented by quite so many species as at Amboyna, they were equally abundant as individuals, and included several fine and handsome kinds which I had not before met with. I did not go far up the mountain side,

confining my walks chiefly to the shady paths among the nutmeg gardens, groves of fruit trees, and small patches of wood which, as at Amboyna, extend from the shore for about a mile inland. The nutmeg appears to thrive here to perfection, and is a very handsome little round-headed tree, rarely exceeding 25 or 30 feet in height, with smooth bark and glossy, ovate, somewhat laurel-like leaves. Coffee and cacao are also cultivated to a small extent, as well as sugar cane, rice, &c., &c.

Among my numerous captures were two fine species of the yellow group of *Ornithoptera*, which were often enough seen but rarely descended to come within reach of the net. Four or five handsome species of *Papilio* were more or less common, and an equal number of species of *Danais*, including *D. Archippus* not rarely (its usual food-plant being common), and a form of *D. Chrysippus*, were, with two or three species of *Callidryas*, the most characteristic butterflies of the more open places. Shady paths and thickets produced some beautiful *Lycænidæ* and *Satyridæ* (*Yphima*, &c.), as well as an exceedingly pretty dark brown and white species of *Cyrestis* commonly, *Rhinopalpa Sabina?* (rare), *Messaras*, a fine species of *Precis*, *Euplœa*, one species only, &c., &c. *Coleoptera* were much more plentiful than at Amboyna, some nice little Longicorns (*Gnoma*, &c.), *Erotylidæ*, *Languriidæ*, *Rhynchophora*, &c., being obtained by beating the dead leaves remaining on felled trees, the bark of which produced a few fine *Carabidæ*, *Heteromera*, *Passalidæ*, &c. On the flower spathe (δ) of a sugar palm (*Saguerus saccharifer*), which was unfortunately just out of reach of my net, I saw quite a number of a fine green *Cetonia* (*Lomaptera* sp.), of which I succeeded in capturing only three specimens, as they flew off with a loud humming noise into the tree tops. On foliage, several beautiful weevils were met with, notably a large *Eupholus* (?), richly marked with metallic emerald-green on a black ground, and a species somewhat like a *Lixus*, completely invested with a thick coating of a pure white powdery substance, not very fugitive to the touch. A little "fire-fly" (*Photuris* sp.?) seemed not rare on shore, and sometimes came off to the ship on calm evenings. The other Orders of insects presented nothing very remarkable during my short stay. Among the "curios" obtained here, the chief were the prepared skins of the Birds of Paradise, for which Ternaté is the great emporium; those brought to the ship for sale were chiefly dry flat skins of the yellow species (*Paradisea minor*), but well made skins of this, and of some of the better sorts (*P. rubra*, *Cicinnurus regius*, *Parotia sexpennis*, &c.), were to be procured at not unreasonable prices.

(To be continued).

The present species is therefore not strictly conformable to the genus *Pollinia* of T. Tozzetti, nor yet clearly to that genus as defined by Signoret. In the double row of lateral spinnerets and fringe it is like *Planchonia*, but that genus has the mentum monomerous and no antennæ.

Though not satisfactory I place it, for the present, as a *Pollinia*. The dorsal row of free filaments is the most appreciable character, there are also the form of the rudiments of the antennæ (rounded, not triangular), the six instead of eight hairs on the anal ring, as well as the more ovate shape of the scale, and the nature of the habitat, to substantiate the distinctness of the species from *P. Costæ*. Of that species neither author mentions any marginal fringe, though, indeed, in the characters of the Family *Lecanodiaspidæ*, in which it is placed, Signoret gives a prominent position to the marginal fringe (p. 161).

On July 12th last Mr. Eustace R. Bankes, of Corfe Castle, sent me ten of these insects, with the following information :—

"While spending the day yesterday in the Isle of Purbeck, in searching for pupæ of *Chauliodus insecurellus* on the scarce, local and little known plant, *Thesium humifusum* (a parasite on other plants), I found the scale-insects I now send. They were in every case attached to the under-side of the twigs, sometimes in a little cluster, generally near the base of the plant, and not easily seen if the plant is examined from the under-side."

I am greatly indebted to Mr. R. Newstead for the pains he has taken to work out and figure the details of structure.

153, Lewisham Road, S.E. :

September, 1892.

ENTOMOLOGICAL NOTES FROM THE EASTERN ARCHIPELAGO.

BY J. J. WALKER, R.N., F.L.S.

(Concluded from page 31).

Ternaté was left at daybreak on the 25th, and, as before, we enjoyed fine and calm but very hot weather on the passage to our next port of call, Samboangan, near the southern extremity of Mindanao, the second island in point of size of the Philippines. On the way we had excellent views of the lofty and picturesque islands of Sangueir and Sian, the latter having a fine volcanic peak nearly 6000 feet in height, emitting dense volumes of smoke at short intervals. We arrived at Samboangan on the morning of the 29th, and spent this and the two following days very pleasantly. This Spanish

town contrasts very unfavourably in its general aspect with the perfect Dutch neatness and cleanliness of Amboyna and Ternaté, where not even a dead leaf is allowed to encumber the streets; here they are full of mud puddles and accumulations of dirt of various kinds, and swarm with dogs, fowls, and gaunt pigs, while evil smells are encountered at every turn. Nearly all the native houses, which are built neatly enough of palm leaf and bamboo, are perched up on posts about six feet above the ground, the space beneath being used for various kinds of lumber. All round the town are extensive paddy (rice) fields, at this time just coming into ear, and presenting a beautifully verdant appearance; a wide fringe of coco-nut plantations extends along the shore line, while banana groves, clumps of fruit trees, and occasional waste patches, afford a sufficient variety of collecting ground. There is some difficulty, however, in getting about, a great deal of the ground being enclosed with close bamboo fences, and the town straggles over a very large extent; while those ugly and vicious, though useful brutes, the water-buffaloes, are very numerous, every mud-hole and little pond being occupied by one or more, and it is as well always to give them as wide a berth as is convenient. The natives are a very civil and well-disposed people, whose chief occupation in life appears to be cock fighting.

About four miles from the town, or rather from the landing place, the country rises gradually into a range of very steep and rugged hills sufficiently well clothed with forest, and a fine and very rapid stream, which flows through the middle of the town, affords a convenient means of access to them by following up its rocky bed, after leaving the road at the foot of the hills. I spent the day here (on November 30th) with very fair success, the most conspicuous feature in the insect life of this locality being the abundance of two species of *Pieridæ* (*Appias*), one white, the other a beautiful reddish-orange butterfly allied to the widely distributed *A. Nero*; these were congregated by hundreds on damp sandy spots on the margin of the stream, along with numerous small "blues" (but very few other butterflies), looking at a little distance like beds of crocuses, and when disturbed, rising in the air in a perfect cloud. All books of tropical travel speak of these assemblages of butterflies, but it was the first time in my experience of collecting that I had witnessed this pretty sight to perfection. In shady places a magnificent *Papilio* (which I think may be *P. Emathion*), most gorgeously marked on the under-surface with bright crimson on a ground of deep black, was often seen, but rarely in good order, and by no means easy to catch, while a black and white

species of the "Pammon" group was more plentiful. One ♂, in beautiful fresh condition, of a fine yellow *Ornithoptera*, was the only specimen which I succeeded in taking out of several seen. The pretty bluish-green and black *Eronia Phocea* was common among thick under-growth along with a species of *Pontia*; two or three species of *Terias* swarmed among *Leguminosæ*, notably a very striking and handsome form with broad black inner margins to the fore-wings, while a fine orange-tipped *Hebomoia* was more often seen than caught. Several fine species of *Danais* were common, but *D. Archippus* was not met with, although its food-plant (*Asclepias curassavica*) was common; *Euplœa*, *Diadema*, *Cynthia*, *Charaxes*, *Messaras*, *Mycalesis*, *Cethosia*, *Neptis*, *Precis*, *Parthenos*, and several other genera were observed, and representatives of nearly all of them were taken. A beautiful form of *Melanitis Leda* was abundant, chiefly about the edges of "paddy" fields, and in the banana groves close to the town a big *Amathusia* (I think *A. Phidippus*) was not uncommon flying out abruptly from among the hanging dead leaves, and by no means easy to obtain in good condition. *A. Discophora* and a very large brown *Hesperid* frequented similar situations, but both were somewhat rare. Of moths I saw but few, though some fine larvæ of *Attacus Atlas* were found on the leaves of the custard apple, *Anona muricata*.

As at Ternaté, I found *Coleoptera* tolerably numerous among dry dead leaves on felled trees, &c., and obtained some interesting little Longicorns, &c., by beating them into my net. A large pubescent species of *Hylotrupes* must be very abundant, as although I did not meet with it myself, I had on two or three occasions a score or more of living specimens evidently just caught offered for sale to me by native boys. Some pretty little *Heteromera* were found under bark and in stumps, a *Pæderus* on the banks of the stream, and a fine *Copris* in its usual habitat. On one occasion, while rambling about in a grove of fruit trees, I had a narrow escape from a great swarm of bees, which were densely clustered on a horizontal bough about eight feet from the ground, and I had passed right under them before I was aware of their presence, luckily without disturbing any. As it was I was glad enough to give them a wide berth without troubling to ascertain the precise species.

After leaving Samboangan we encountered the north-east monsoon rather strongly, our progress being in consequence not very rapid, and we did not reach our next port, Manila, until the afternoon of December 7th. We lay about a mile and a half from the town, the shores of the extensive Bay of Manila being very low, and apparently

swampy in many parts, only a few high forest-clad hills being visible in the background. The coco-nut palm, so conspicuous a feature in the scenery of all the places we had lately visited, was here entirely absent, its place being taken by the bamboo. From the extensive Lago de Bay, some 15 miles from Manila, the river Pasig, which divides the city into two somewhat unequal parts, brings down a great quantity of the so-called "water cabbage," *Pistia stratiotes*, a gigantic ally of our duckweeds. This plant is superficially very like a small lettuce or cabbage, and the whole surface of the harbour is strewn with it at certain states of the tide.

As the city of Manila contains nearly 300,000 inhabitants, and occupies a proportionately large area, I found it necessary to hire a two-wheeled carriage, or "cara mata" as it is called here, and to go out some four or five miles into the country before I could find any collecting ground at all worth working. Such a locality I found at the village of Santa Misa, close to the reservoir which supplies the city with drinking water, this being conveyed by means of a huge cast iron pipe to its destination. Along the course of this pipe, which is planted on either side with tall rows of bamboo, and in some rough waste ground near the reservoir, in the midst of interminable paddy fields and fruit gardens, I found a very tolerable variety of *Lepidoptera*. The fine yellow *Ornithoptera* found rarely at Samboangan was here tolerably common. It is a beautiful sight to see one of these grand insects, daintily poised (as it were on tiptoe) with vibrating wings and extended proboscis, on one of the bright red or yellow corymbs of that most attractive shrub, *Lantana camera*. While thus "on the feed" the *Ornithoptera* admits of a very close approach, and is easily captured. Two *Papilio*'s, of the "*Pammon*" and "*Agamemnon*" groups respectively, were occasionally seen, but not captured, and a beautiful species of this genus, sooty-black with rich crimson abdomen and spots of the same colour on the under-side of the tailed hind-wings, occurred not rarely in shady places. *Pieris*, *Pontia*, *Hebomoia*, *Eronia*, *Callidryas*, and *Terias* were represented, more or less copiously, but there was a marked absence of the usually abundant *Danais* and *Euplæa*, only one very ordinary looking species of the former genus being obtained. One much damaged specimen of a very handsome form of *Libythea* occurred at *Lantana* flowers, with *Diadema Misippus* and sp., *Atella Phalanta?*, *Junonia* (two species), a fine *Precis* allied to the Australian *P. Zelima*, *Neptis* sp. very like the European *N. aceris*, *Ypthima* sp. (abundant), &c., &c. The *Lycenidæ* and *Hesperiidæ* were represented only by a few small and comparatively obscure forms.

Of moths the most conspicuous was a very beautiful *Eusemia* with black wings largely spotted with deep ochre-yellow, and the body brilliantly variegated with metallic bluish-green and crimson; this insect was locally not uncommon, flying in the hot sunshine like a Burnet moth. I saw very few Coleoptera, though I took one specimen of a beautiful weevil (*Pachyrhynchus* sp.), and the largest and finest representative of the *Coccinellidae* which I have ever met with.

With our departure from Manila early on the morning of December 11th our too brief voyage among the beautiful and luxuriant islands of the Eastern Archipelago may be said to have come to an end; and after a week of nearly cloudy skies, rough seas, and strong north-east monsoon winds, we reached our final destination, H^ong Kong, where we remain until the beginning of March, when we commence our third surveying season in Chinese waters.

H. M. S. "Penguin:"
January 3rd, 1892.

DESCRIPTIONS OF SOME *RHYNCHOTA* OF GEOGRAPHICAL INTEREST.

BY E. BERGROTH, M.D.

Of the genera mentioned below, *Niphe*, Stål, was hitherto only known from tropical Asia and Malasia, *Rhaphidosoma*, A. et S., only from the Ethiopian region. *Peromatus*, A. et S., is represented by a few species in eastern South America and Central America. Of *Zelus*, Fabr., numerous species occur in the same parts of America, whilst from western South America a single Peruvian species is known. It is a remarkable fact that the genus *Edessa* (from which *Peromatus* is scarcely distinct), although extremely abundant in Brazil and northern South America, is totally wanting in the western States south of Colombia. It must be remarked, however, that Chili has a very peculiar and highly specialized Rhynchotal fauna, and that very little is known of the Hemipterous fauna of Bolivia, Peru,* and Ecuador.

Fam. PENTATOMIDÆ.

1. NIPHE AETHIOPICA, n. sp.

Elongato-ovovata, testacea, supra sat crebre fusco vel nigro-punctata, punctura intra latera pronoti valde condensata, linea lœvi impunctata postice latiore et fulvescente ab apice pronoti ad apicem scutelli pertracta, limbo angusto lateralí pronoti et corii pallido, pectore macula parva nigra prope

* Many insects of different Orders distributed in the last years by Messrs. Staudinger and Bang-Haus as being from Peru, are really from localities in northern Brazil (Itaituba, Thomar, Faro, &c.).